

September 24, 2003

Commissioner for Patents P.O.Box 1450

Alexandria, VA 22313-1450

Fr: George O. Saile, Reg. No. 19,572

28 Davis Avenue

Poughkeepsie, N.Y. 12603

Subject:

Serial No. 10/613,598 07/03/03

Kenichi Takano

DOUBLE LAYER LONGITUDINAL BIAS STRUCTURE

Grp. Art Unit:

## INFORMATION DISCLOSURE STATEMENT

Enclosed is Form PTO-1449, Information Disclosure Citation
In An Application.

The following Patents and/or Publications are submitted to comply with the duty of disclosure under CFR 1.97-1.99 and 37 CFR 1.56. Copies of each document is included herewith.

## CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September (1, 2003).

Stephen B. Ackerman, Reg.# 37761

Signature/Date

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- U.S. Patent 6,542,341 to Carey et al., "Magnetic Sensors Having an Antiferromagnetic Layer Exchange/Coupled to a Free Layer," describes an additional bias field that balances the total transverse internal magnetic field.
- U.S. Patent 6,396,669 to Gill, "AP Pinned PTMN Spin Valve Read Head Biased for Playback Symmetry and Magnetic Stability," discloses a spin valve sensor of a read head having a platinum manganese (PtMn) pinning layer that pins a magnetic moment of an antiparallel (AP) pinned layer structure.
- U.S. Patent 6,362,941 to Gill, "Spin Valve Sensor Having Free Layer Stabilized by Ferromagnetic and Sense Current Fields," provides a horizontal component of a ferromagnetic coupling field on the free layer of a spin valve sensor in the same direction as a longitudinal hard biasing field for magnetically stabilizing the free layer.
- U.S. Patent 6,338,899 to Fukuzawa et al., "Magnetoresistance Effect Element, Magnetic Head, Magnetic Head
  Assembly, Magnetic Storage System," discloses a highsensitivity and high-reliability magnetoresistance effect
  device (MR device) in which bias point designing is easy, and
  also a magnetic head, a magnetic head assembly and a magnetic
  recording/reproducing system incorporating the MR device.

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- U.S. Patent 6,517,896 to Horng et al., "Spin Filter Bottom Spin Valve Head with Continuous Spacer Exchage," discloses a high performance specular free layer bottom spin valve.
- U.S. Patent 6,313,973 to Fuke et al., "Laminated Magnetorestrictive Element of an Exchange Coupling Film, an Antiferromagnetic Film and a Ferromagnetic Film and a Magnetic
  Disk Drive Using Same," discloses a magnetoresistive element
  having an change coupling film utilizing an exchanging coupling
  between an antiferromagnetic film and a ferromagnetic film, a
  magnetic head using the magnetoresistive element, and a
  magnetic disk drive using the magnetic head.

Sincerely

Stephen B. Ackerman,

Reg. No. 37761

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